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**Please find below and/or attached an Office communication concerning this application or proceeding.**

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**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Application Number: 10/536,806
Filing Date: May 27, 2005
Appellant(s): WENDEROTH ET AL.

Gordon P. Klancnik
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed November 12, 2008 appealing from the Office action mailed June 12, 2008.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

| | | |
|---|---|---|
| 02/055630 | PCT | 07-2002 |
| 02/055759 | PCT | 07-2002 |

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eaton et al (6,818,146) in view of WO (02/055630).

Eaton et al disclose a nontoxic fuel cell engine coolant comprising aqueous solutions of 1,3 propanediol having 50, 55 and 60% volume percent in water (col. 3, lines 10-30) and wherein said solution comprises 0.002 to 0.02% by weight of mercaptobenzothiazole, benzyltriazole in water (see claims 5 and 6). Eaton et al specifically teach that said conductivity is less than 50 in tables 6 and 7.

Eaton et al disclose all of the instantly required except the orthosilicic acid esters.

WO '630 discloses orthosilicic acid esters in fuel cell engine coolant compositions having a conductivity of less than 50 us/cm (see abstract).

It would have been obvious to one of ordinary skill in the art to include the orthosilicic acid esters of WO '630 to the compositions of Eaton et al because WO '630 teaches that said orthosilicic acid esters aid in preventing short circuits and corrosion in said fuel cells (page 2, lines 24-28).

Therefore, it would have been obvious to one ordinary skill in the art, at the time the invention was made, to include an orthosilicic acid ester as suggested by WO '630 to the compositions of Eaton et al because only beneficial and or synergistic would have been obtained in the absence of a showing to the contrary.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO (02/055759 in view of WO (02/055630).

WO '759 discloses a nontoxic fuel cell engine coolant comprising aqueous solutions of 1,3 propanediol having 50, 55 and 60% volume percent in water (page 9, line 23-page 10, line 10 and page 11, lines 13-31) and wherein said solution comprises 0.002 to 0.02% by weight of mercaptobenzothiazole, benzyltriazole in water (see claims 6 and 7). WO '759 specifically teaches that said conductivity is less than 50 in tables 6 and 7

WO '759 does not disclose an orthosilicic acid ester.

WO '630 discloses orthosilicic acid esters in fuel cell engine coolant compositions having a conductivity of less than 50 us/cm (see abstract).

It would have been obvious to one of ordinary skill in the art to include the orthosilicic acid esters of WO '630 to the compositions of WO '759 because WO '630 teaches that said orthosilicic acid esters aid in preventing short circuits and corrosion in said fuel cells (page 2, lines 24-28).

Therefore, it would have been obvious to one ordinary skill in the art, at the time the invention was made, to include an orthosilicic acid ester as suggested by WO '630 to the compositions of WO '759 because only beneficial and or synergistic would have been obtained in the absence of a showing to the contrary.

**(10) Response to Argument**

3. Appellant argues that Table 1 of applicant's specification shows unexpected results, commensurate in scope with the claimed invention, by providing illustrations of

his compositions having conductivity less than10 µS/cm for 28 days of use or specifically the longevity or duration of his composition.

4. The examiner contends that applicant's showing in Table 1 does little to distinguish the claimed invention form the prior art of record. First, appellant does not compare the claimed invention against the prior art of record to effective show the alleged distinctions. Secondly, the examiner asserts that low conductivity amongst fuel cells has already been disclosed in Eaton '146 at column 10, lines 57-63 and WO '759 at page 9, lines 21-25 and Tables 6 & 7, which states that compositions having greater than 250 kOhm-cm are desired to formulate fuel cell coolants to comprise a low conductivity. Moreover, secondary reference WO '630 further adds by suggesting that said silicone additive be employed to aid in reducing the conductivity to less than 5 µS/cm (page 4, lines 31-36). Therefore, nothing is seen unexpected by providing fuel cell coolant compositions with low conductivity of less than 10 µS/cm since the prior art of record teaches known ingredients that aid in establishing fuel cell coolants with conductivity of less than 5 µS/cm. Furthermore, the showing is not commensurate in scope with the claimed invention. Appellant's table 1 examples are drawn to specific benzotriazoles and tetraethoxysilane in specific proportions. Appellants' claims are drawn to a much broader 5-membered heterocyclic compounds or azole derivatives and ortho-silicic esters (see claim 1). Therefore, criticality cannot be established with respect to the Table 1 examples, in light of the appellant's failure to commensurate the showing with the claimed invention and make a comparison closely related to the art of record.

**5. Accordingly, it is held that an affidavit or declaration under 37 CFR 1.132 must compare the claimed subject matter with the closest prior art to be effective to rebut a prima facie case of obviousness. In re Burckel, 592 F.2d 1175, 201 USPQ 67 (CCPA 1979). "A comparison of the claimed invention with the disclosure of each cited reference to determine the number of claim limitations in common with each reference, bearing in mind the relative importance of particular limitations, will usually yield the closest single prior art reference." In re Merchant, 575 F.2d 865, 868, 197 USPQ 785, 787 (CCPA 1978). Where the comparison is not identical with the reference disclosure, deviations therefrom should be explained, In re Finley, 174 F.2d 130, 8 USPQ 383 (CCPA 1949), and if not explained should be noted and evaluated, and if significant, explanation should be required. In re Armstrong, 280 F.2d 132, 126 USPQ 281 (CCPA 1960).**

**Whether the unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, the "objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support." In other words, the showing of unexpected results must be reviewed to see if the results occur over the entire claimed range. In re Clemens, 622 F.2d 1029, 1036, 206 USPQ 289, 296 (CCPA 1980)**

Appellant argues that the prior art of record teaches away from appellant's claimed invention and Eaton shows, at Table 6 an increase in conductivity from 9 to 14 μmhos/Cm and PCT'630 increases from 0.8 to 3.0 μS/cm (page 7, lines 17-23).

The examiner contends that PCT '630 further substantiates the primary references by disclosing examples of longevity and durability by increasing from 0.8 to 3.0 μS/cm over 7 to 42 days as suggested by appellant. Appellant argues that in his Table 1 examples that they show increases ranging from 2.9 to 3.3 μS/cm and 3.4-2.8 μS/cm over 28 days. Therefore, it would appear to the artisan of ordinary skill that the secondary reference WO '630 teaches compositions with longevity and durability equally as effective as the claimed invention and the skilled artisan would have been motivated to include the additional component(s) of WO '630 to increase the longevity and durability as argued by appellant. Accordingly, nothing unexpected is seen by appellant's Table 1 examples since the data was previous proffered by WO '630.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Necholus Ogden, Jr./
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/Harold Y Pyon/
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